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United States Patent [19]
Barclay

[11] Patent Number: **5,688,500**
[45] Date of Patent: **Nov. 18, 1997**

[54] **METHOD OF AQUACULTURE COMPRISING FEEDING MICROFLORA HAVING A SMALL CELL AGGREGATE SIZE**

[75] Inventor: **William R. Barclay, Boulder, Colo.**

[73] Assignee: **OmegaTech Inc., Boulder, Colo.**

[21] Appl. No.: **461,137**

[22] Filed: **Jun. 5, 1995**

Related U.S. Application Data

[62] Division of Ser. No. 292,490, Aug. 18, 1994, Pat. No. 5,518,918, which is a division of Ser. No. 962,522, Oct. 16, 1992, Pat. No. 5,340,742, which is a continuation-in-part of Ser. No. 911,760, Jul. 10, 1992, Pat. No. 5,340,594, which is a division of Ser. No. 580,778, Sep. 11, 1990, Pat. No. 5,130,242, which is a continuation-in-part of Ser. No. 439,093, Nov. 17, 1989, abandoned, which is a continuation-in-part of Ser. No. 241,410, Sep. 7, 1988, abandoned.

[51] Int. Cl.⁶ **A01N 63/00; A23L 1/237; C12N 1/00**

[52] U.S. Cl. **424/93.1; 426/53; 426/54; 426/601; 426/608; 426/641; 426/649; 435/134; 435/243; 435/254.1; 435/261**

[58] Field of Search **426/53, 54, 601, 426/608, 615, 635, 641, 649; 424/93.1; 435/134, 243, 254.1, 257.1, 261, 911, 946**

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[57] **ABSTRACT**

Disclosed is a process for growing the microflora Thraustochytrium, Schizochytrium, and mixtures thereof, which includes the growing of the microflora in fermentation medium containing non-chloride containing sodium salts, in particular sodium sulfate. In a preferred embodiment of the present invention, the process produces microflora having a cell aggregate size useful for the production of food products for use in aquaculture. Further disclosed is a food product which includes Thraustochytrium, Schizochytrium, and mixtures thereof, and a component selected from flaxseed, rapeseed, soybean and avocado meal. Such a food product includes a balance of long chain and short chain omega-3 highly unsaturated fatty acids.

8 Claims, 8 Drawing Sheets